TOOSET headset

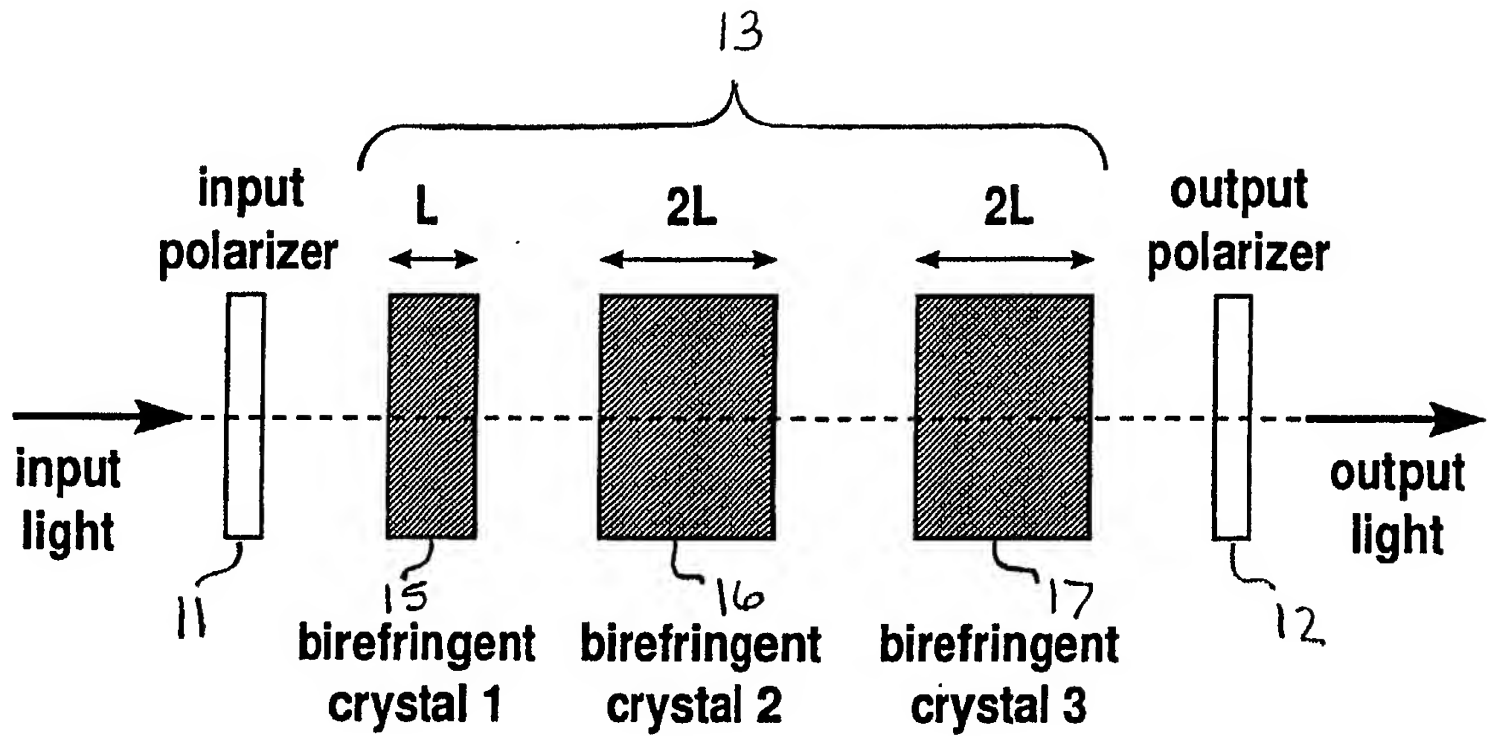


FIG. 1

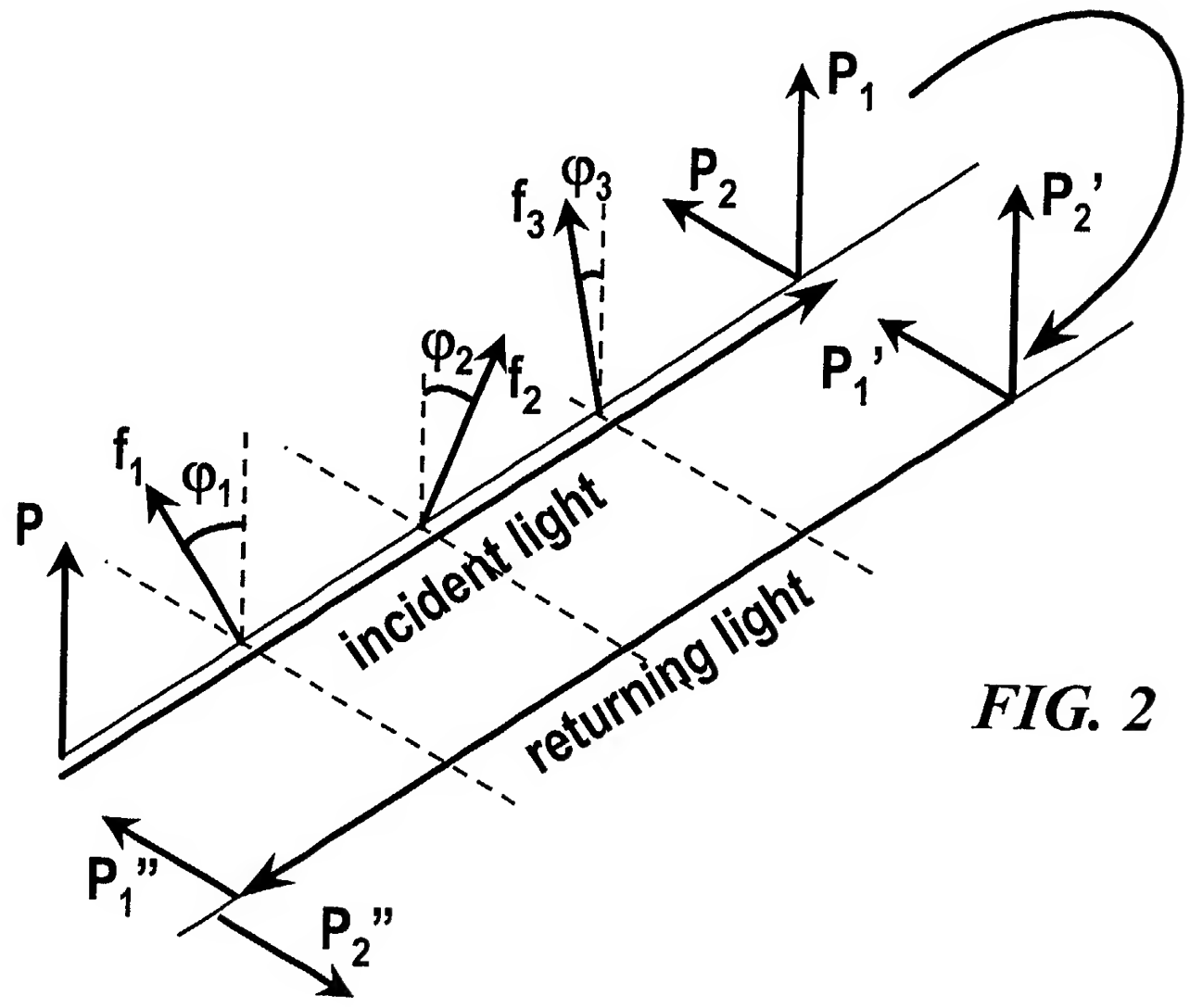

P
f1
φ1
φ2
f2
f3
φ3
P2
P1
P2'
P1'
incident light
returning light
P1"
P2"

FIG. 2

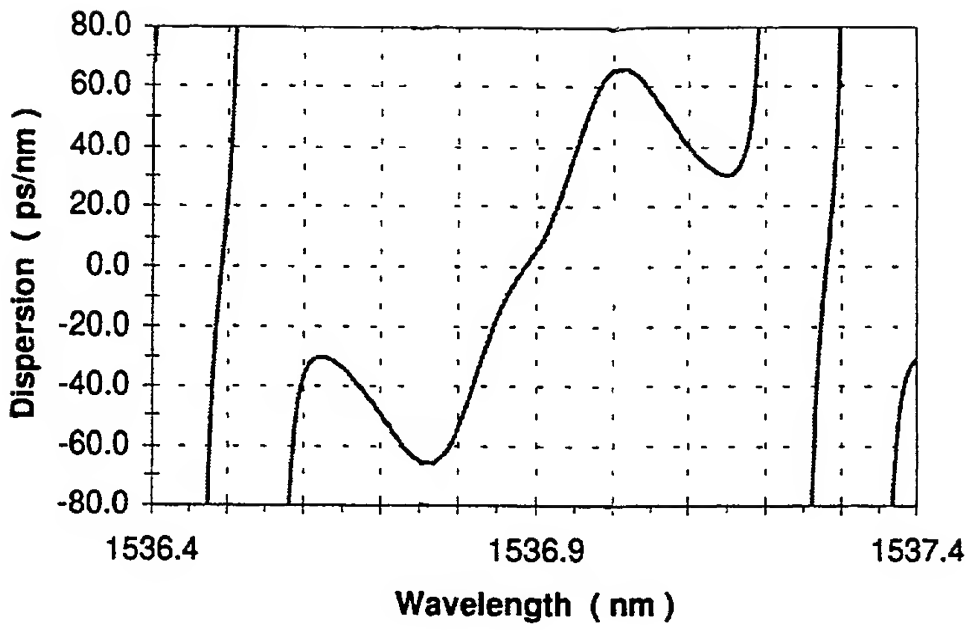


FIG. 3

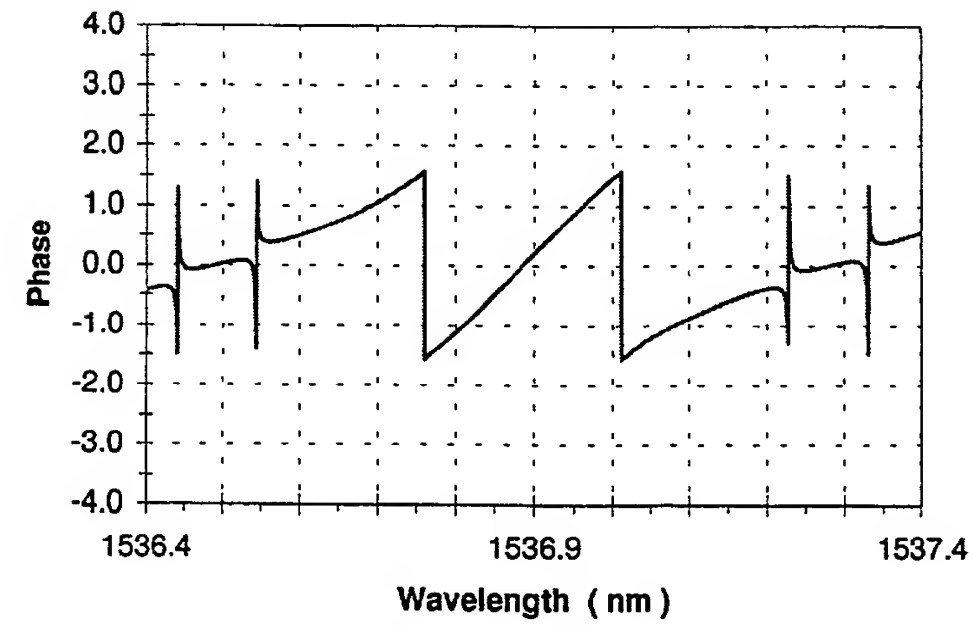


FIG. 4

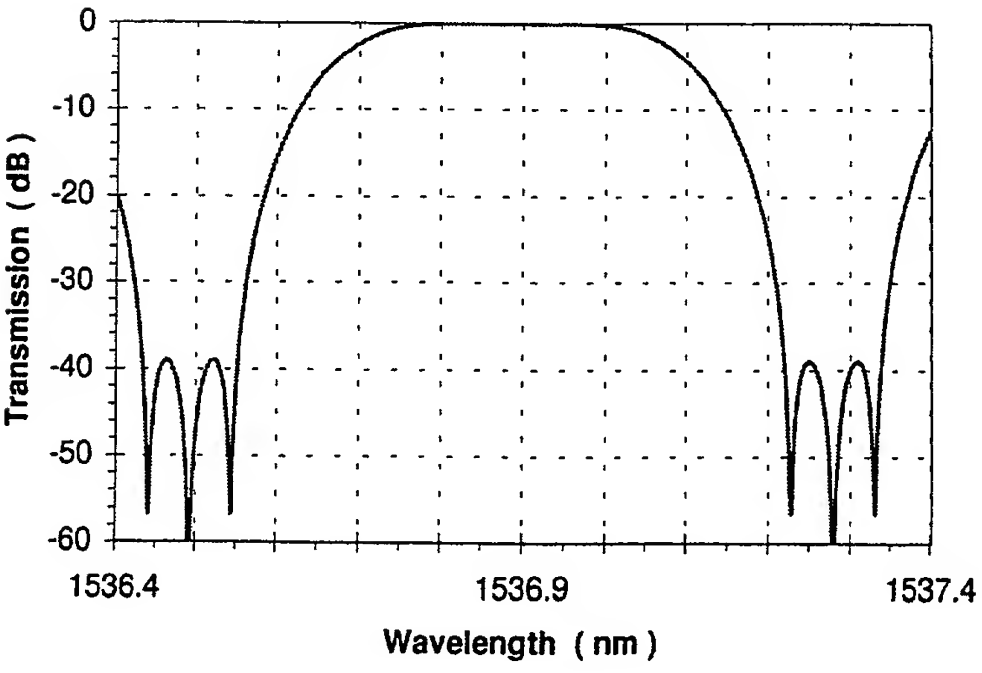


FIG. 5

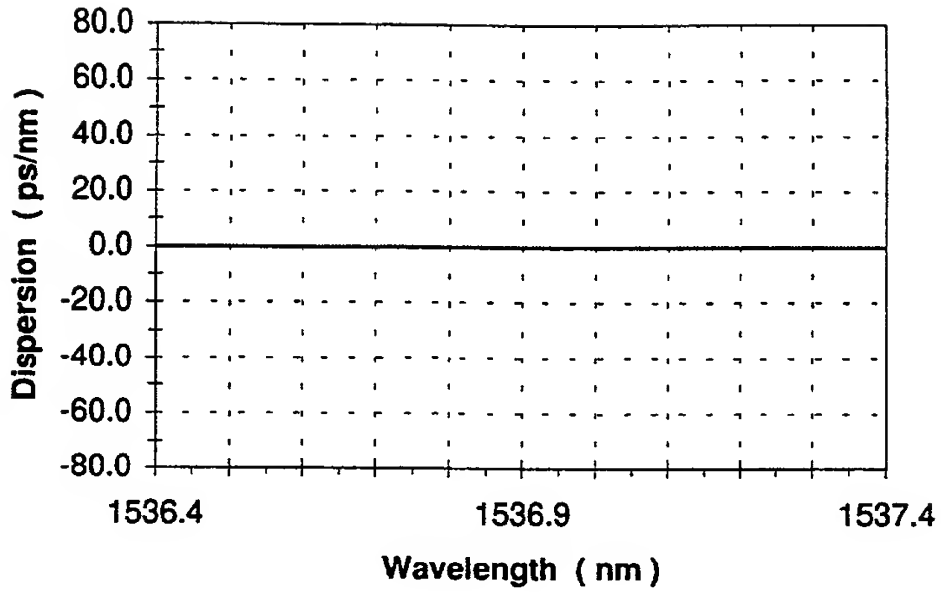


FIG. 6

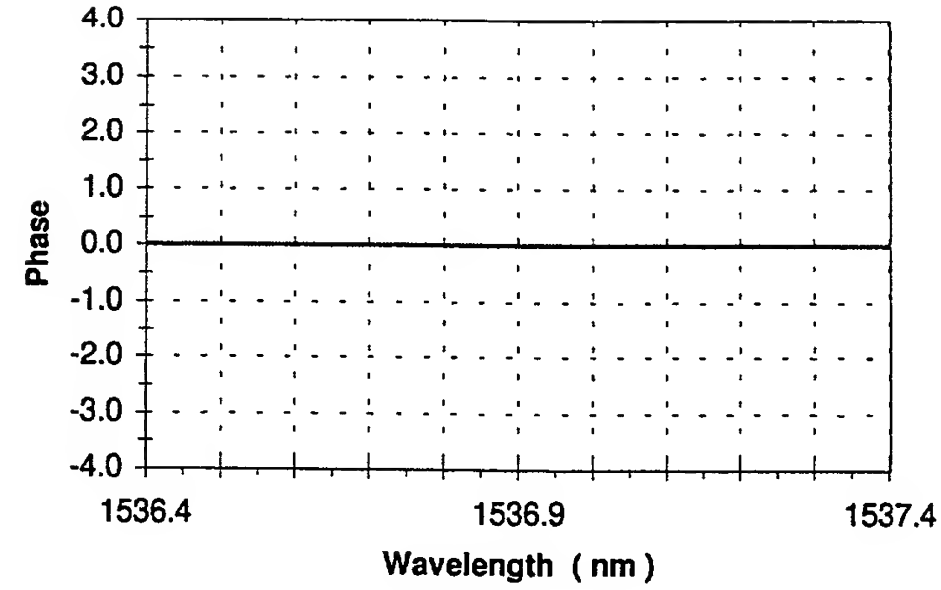


FIG. 7

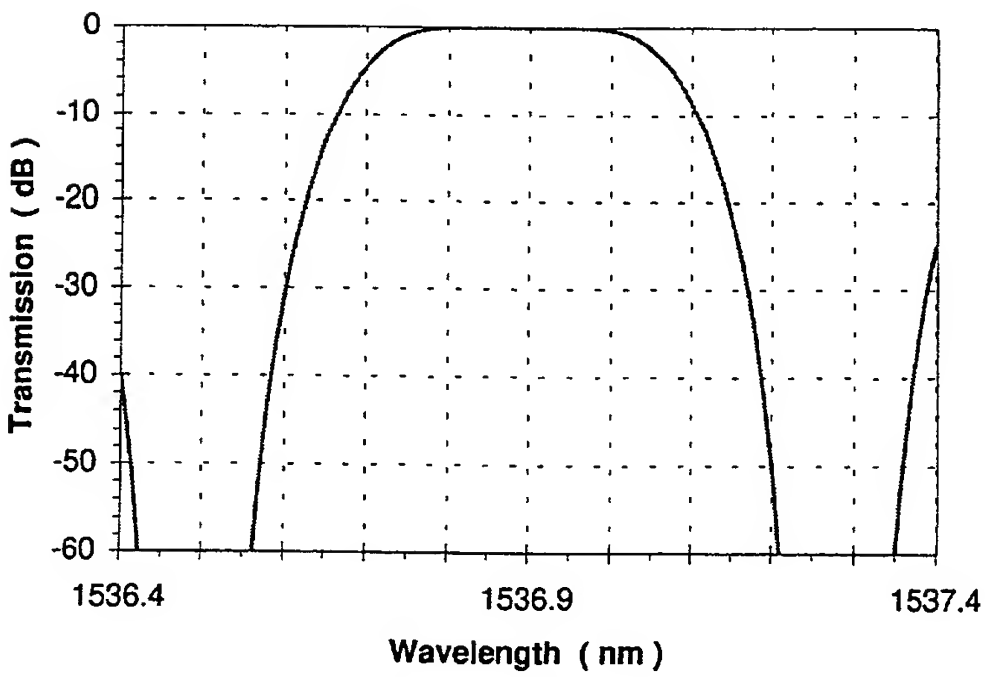
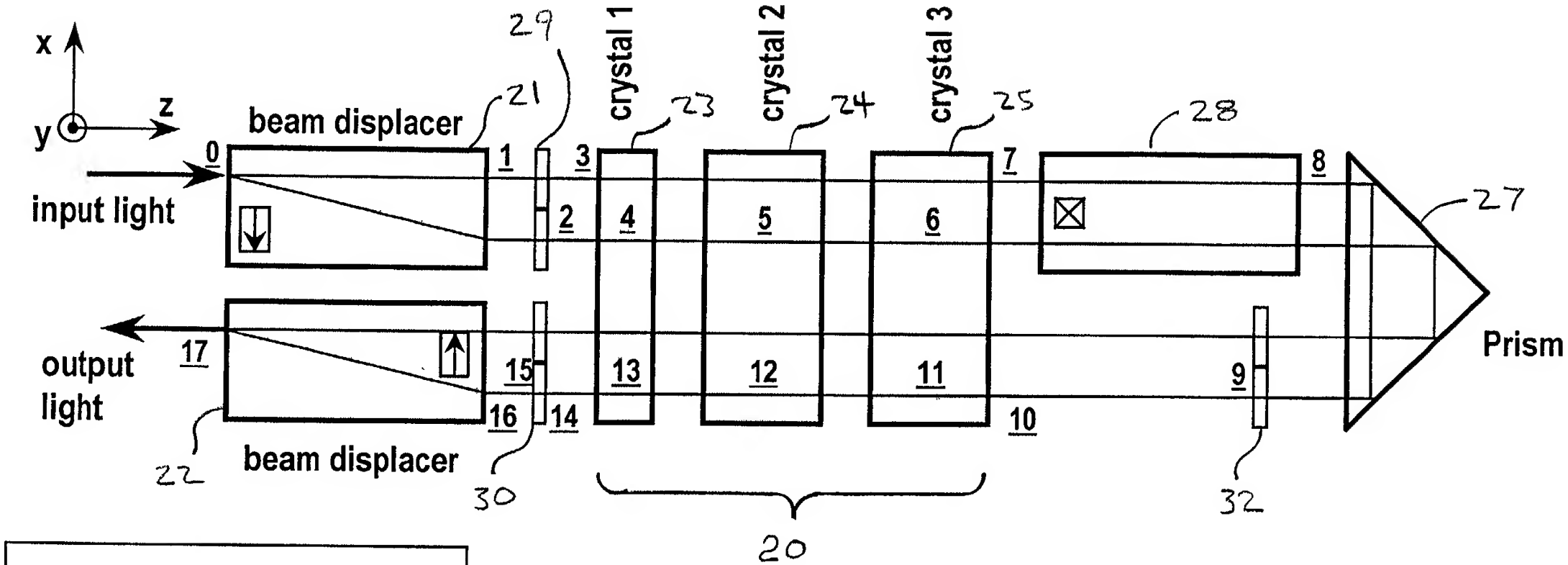


FIG. 8

FOBETT "HEZSECOT



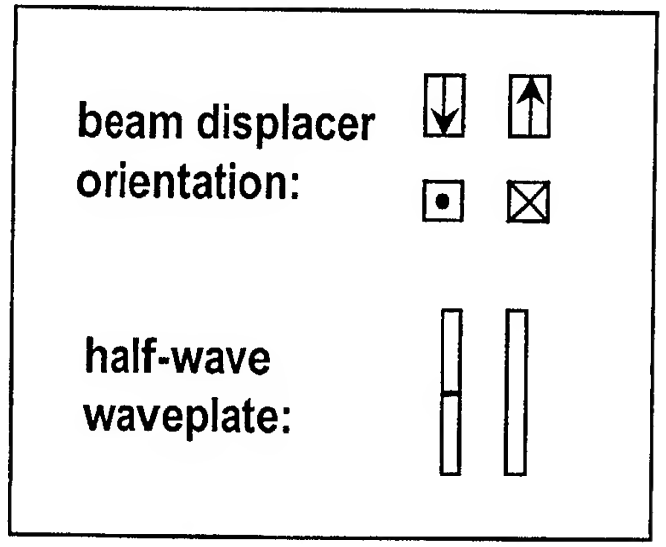


FIG. 9

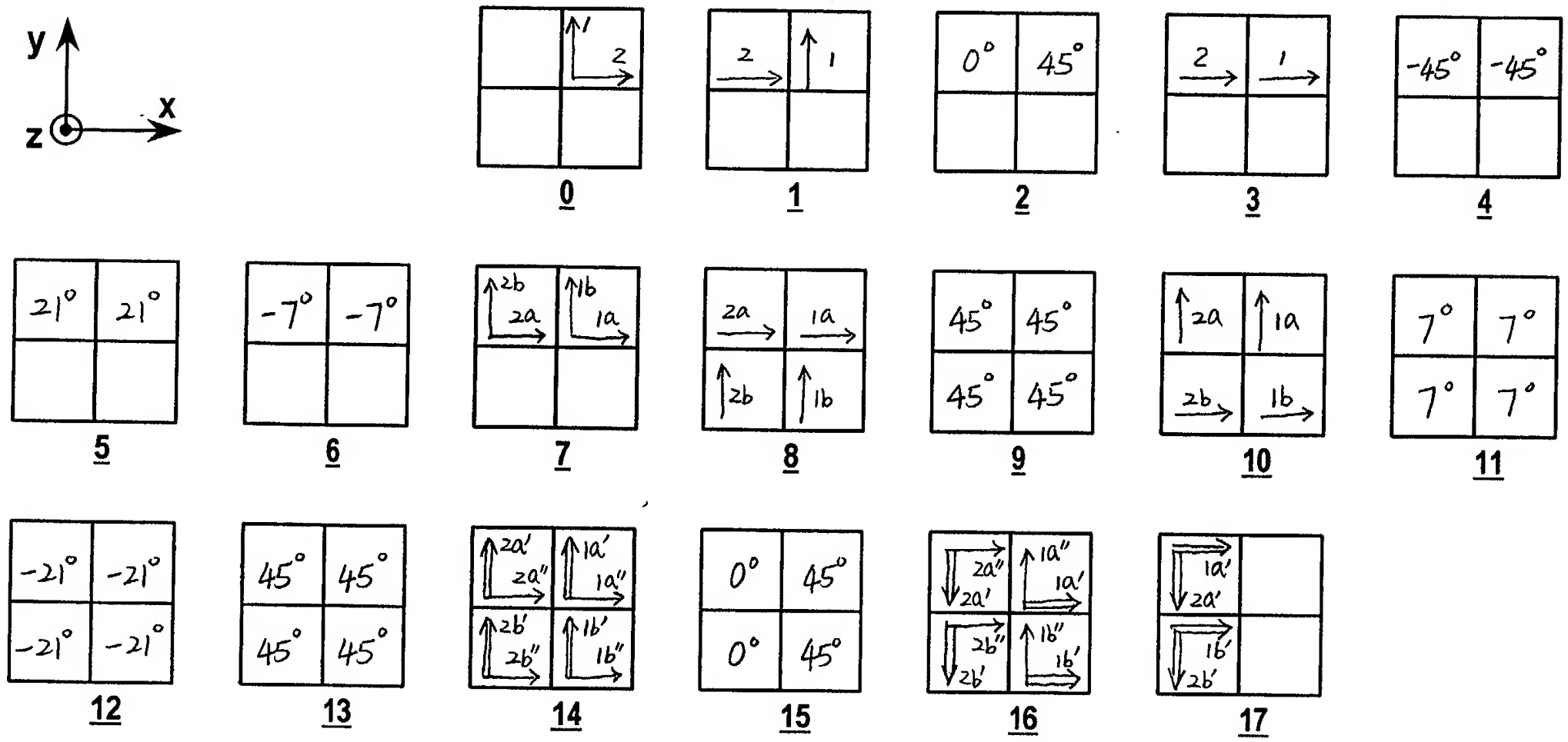
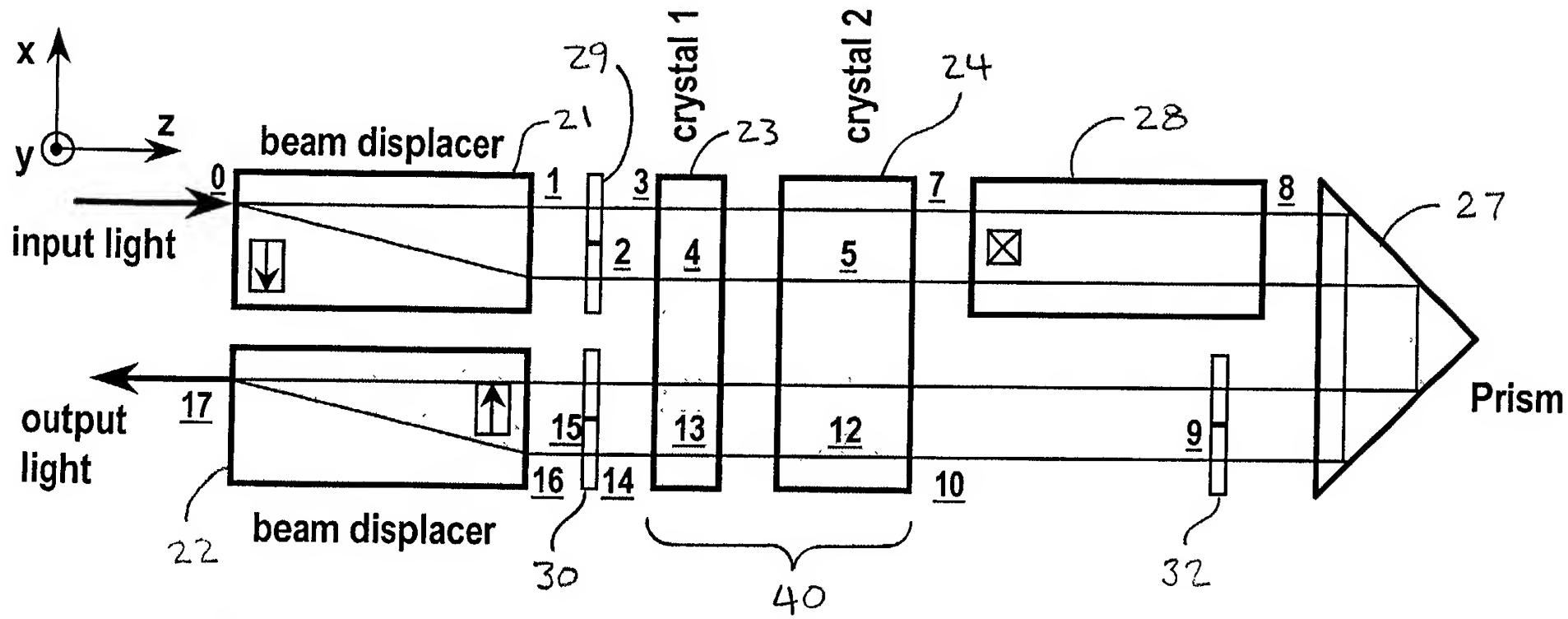

y
x
z
1
2
0
2
1
1
0°
45°
2
2
1
-45°
-45°
3
4
21°
21°
-7°
-7°
2b
2a
1b
1a
2a
1a
2b
1b
45°
45°
45°
45°
2a
1a
2b
1b
7°
7°
7°
7°
5
6
7
8
9
10
11
-21°
-21°
-21°
-21°
45°
45°
45°
45°
2a'
2a''
1a'
1a''
2b'
2b''
1b'
1b''
0°
45°
0°
45°
2a''
2a'
1a''
1a'
2b''
2b'
1b''
1b'
1a'
2a'
1b'
2b'
12
13
14
15
16
17

FIG. 10

TOKEN "HE29F08T



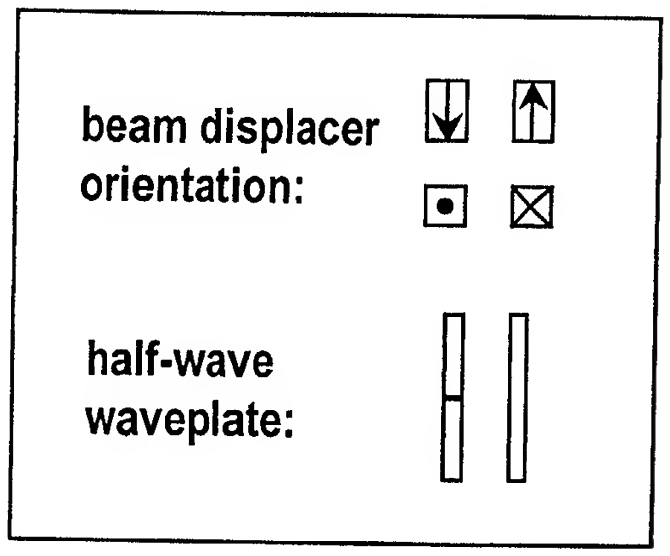
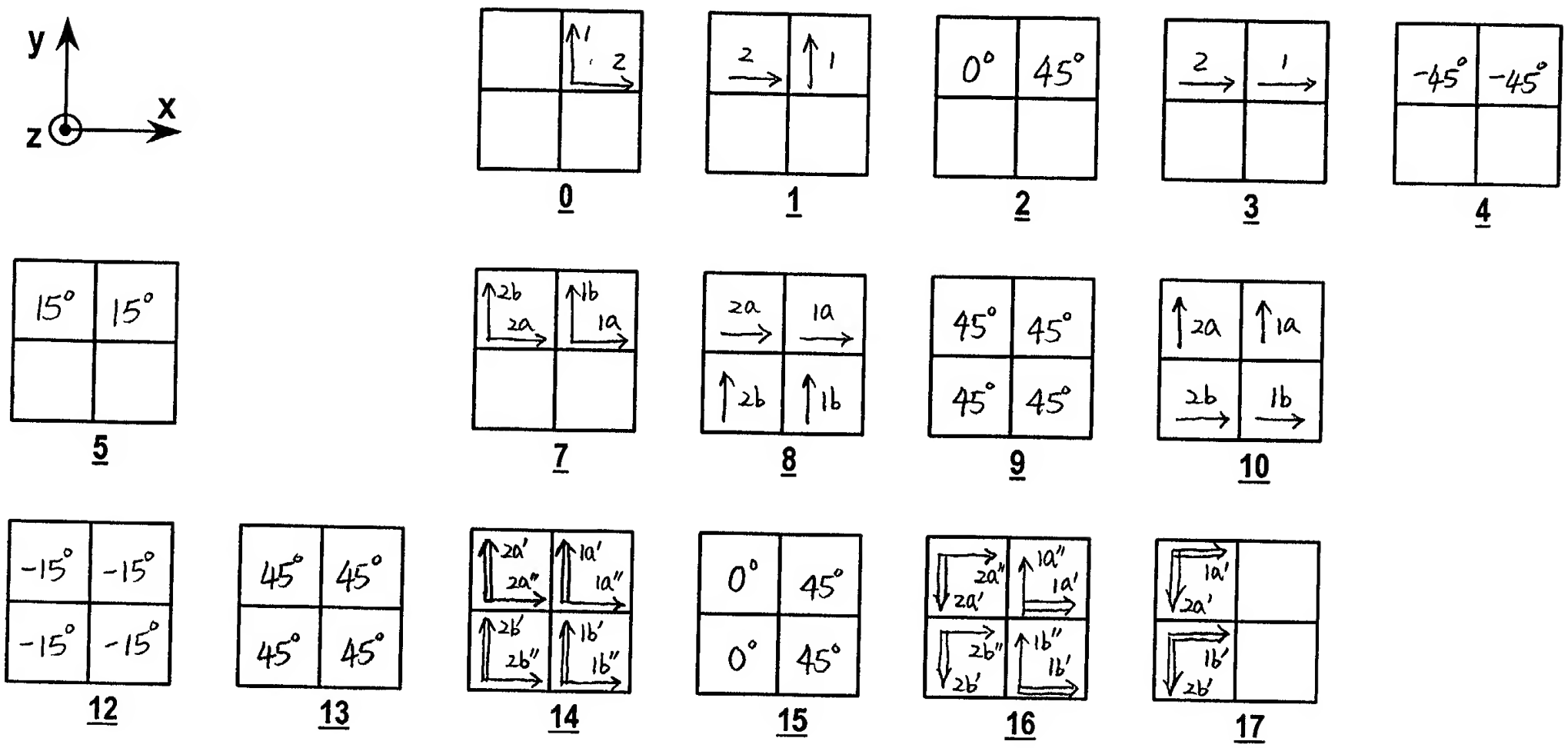


FIG. 11


y
x
z
1
2
0°
45°
-45°
-45°
15°
15°
2b
2a
1b
1a
2a
1a
2b
1b
45°
45°
45°
45°
2a
1a
2b
1b
-15°
-15°
-15°
-15°
45°
45°
45°
45°
2a'
2a''
1a'
1a''
2b'
2b''
1b'
1b''
0°
45°
0°
45°
2a''
2a'
1a''
1a'
2b''
2b'
1b''
1b'
1a'
2a'
1b'
2b'
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1
2
3
4
5
7
8
9
10
12
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14
15
16
17

FIG. 12

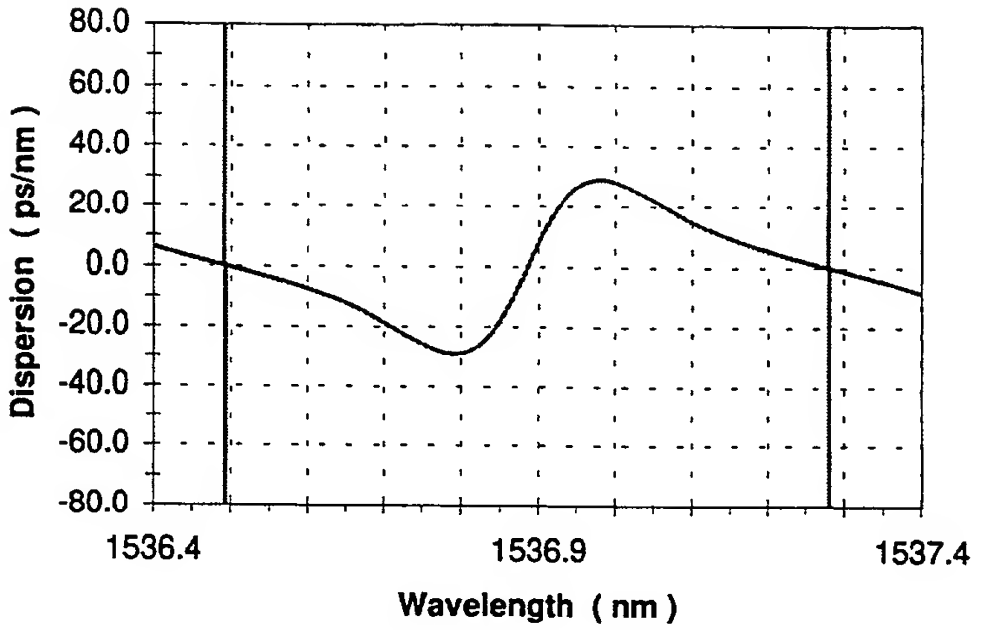


FIG. 13

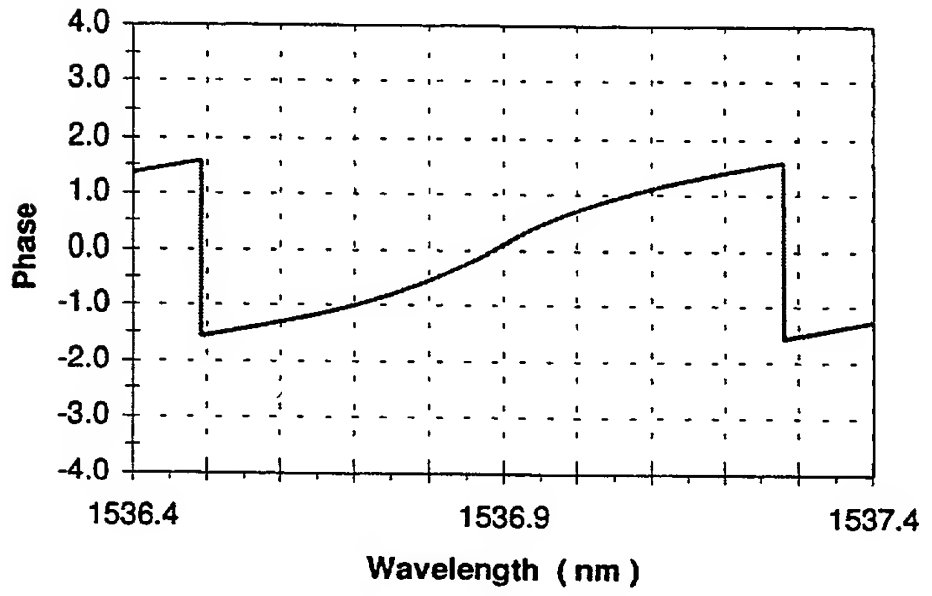


FIG. 14

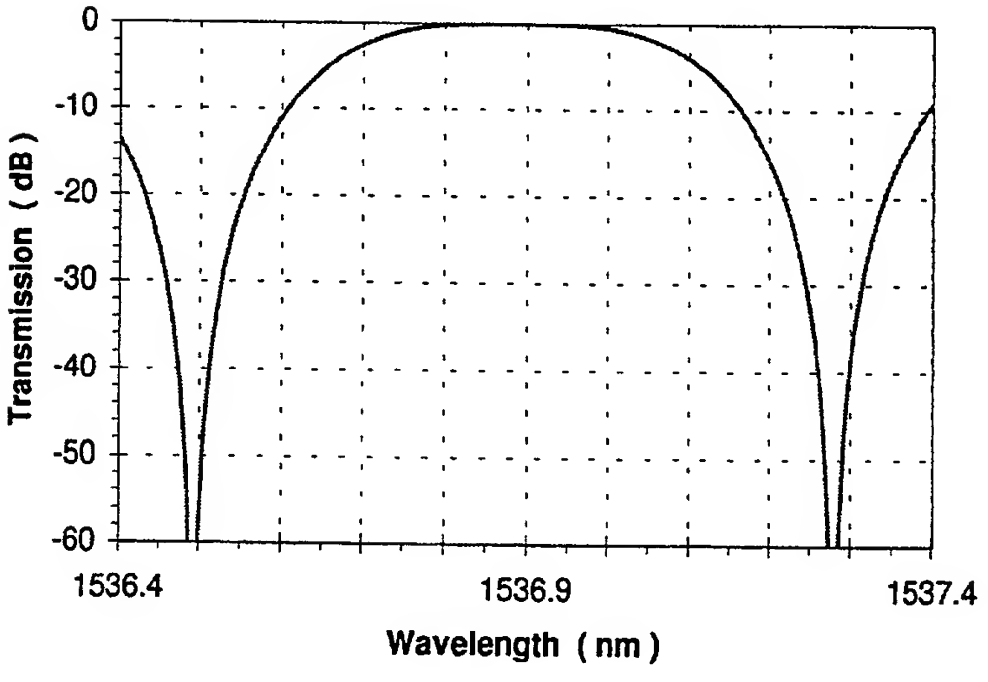


FIG. 15

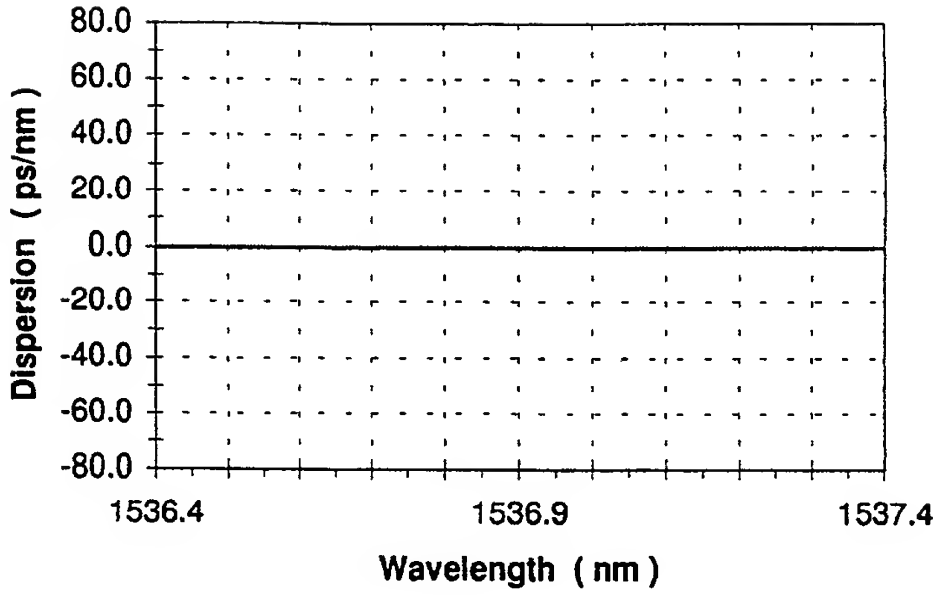


FIG. 16

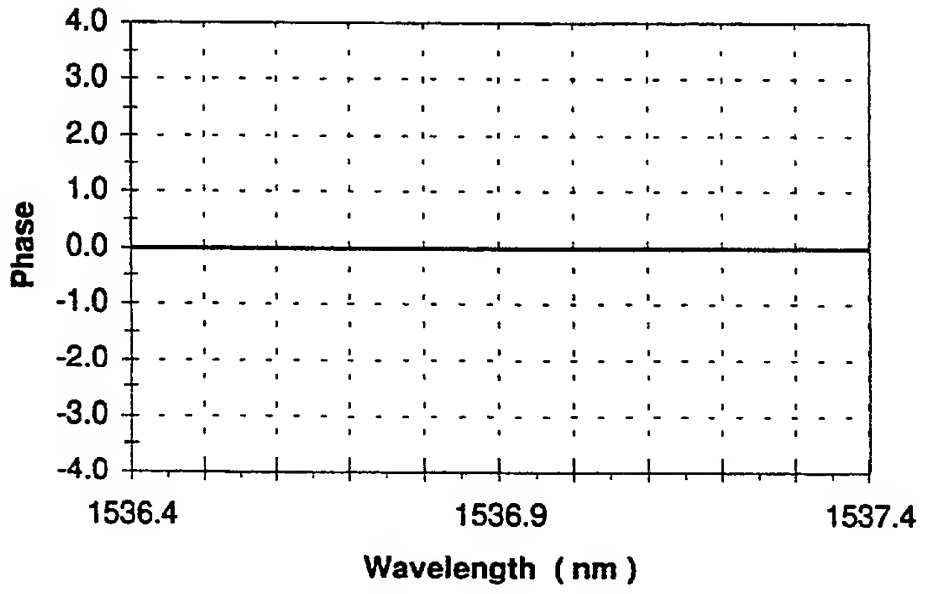


FIG. 17

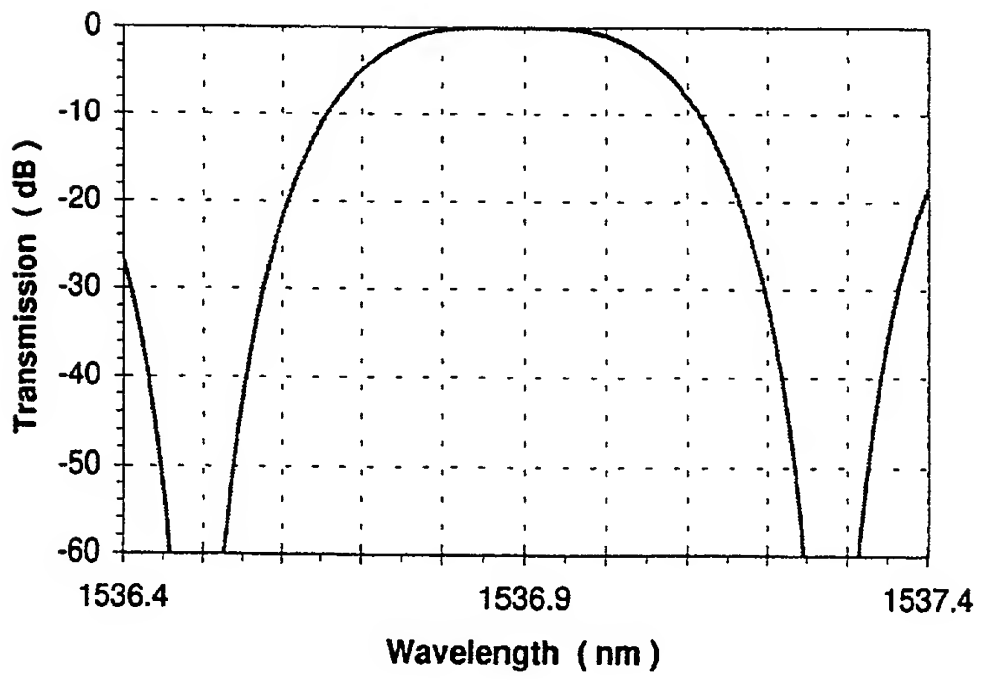


FIG. 18

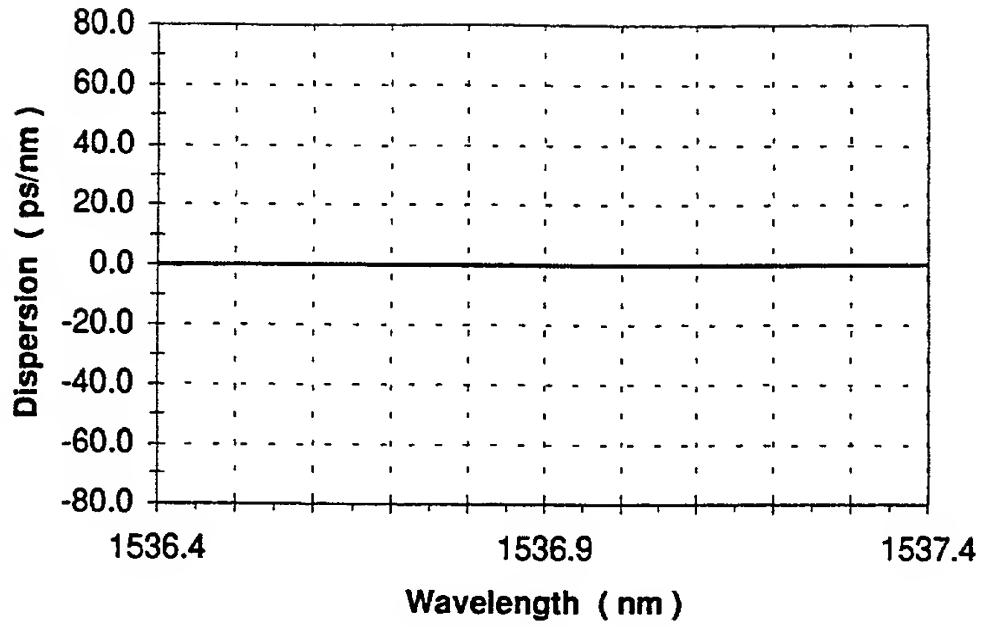


FIG. 19

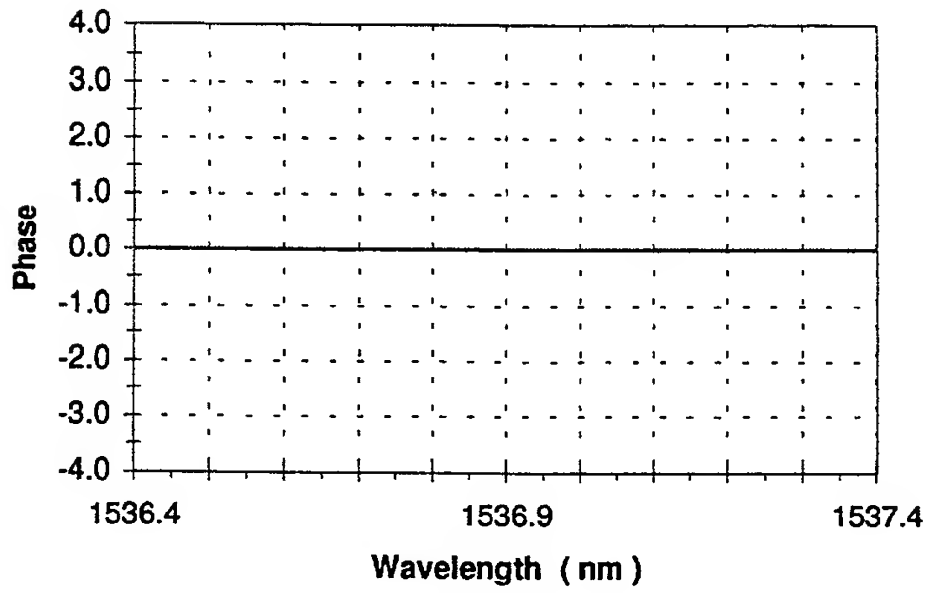


FIG. 20

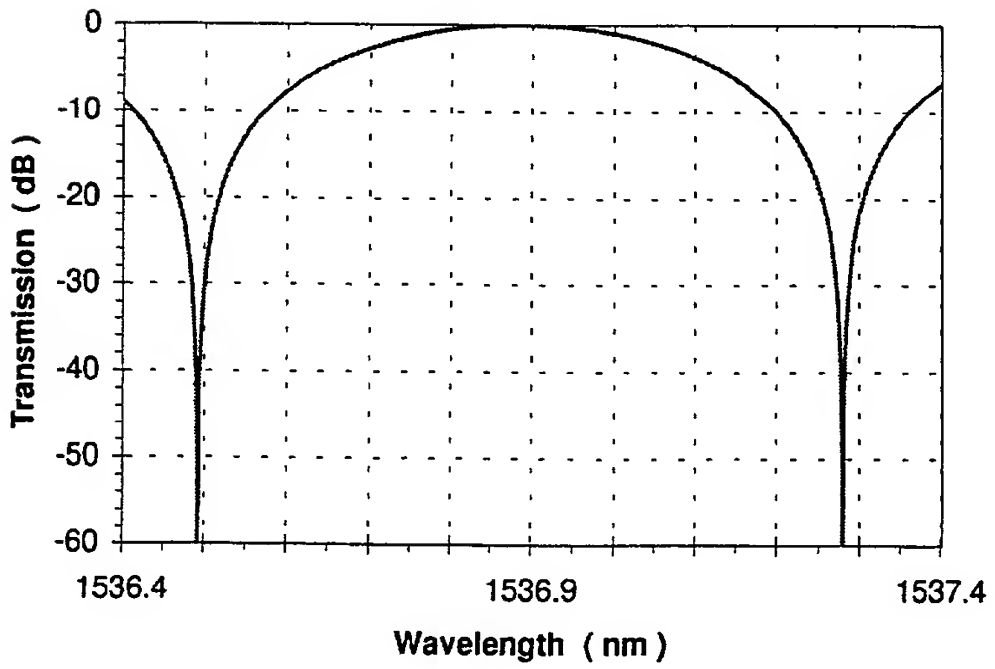


FIG. 21

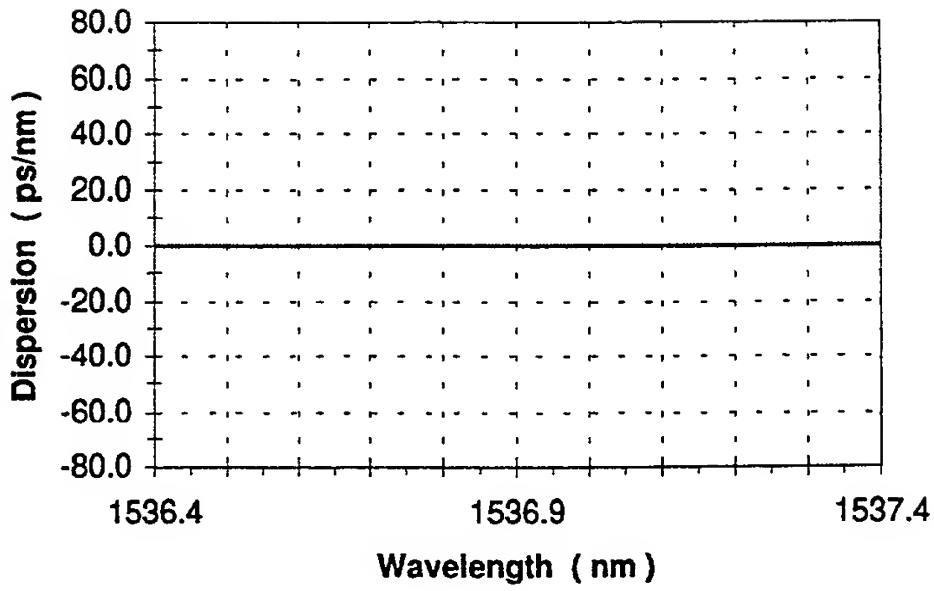


FIG. 22

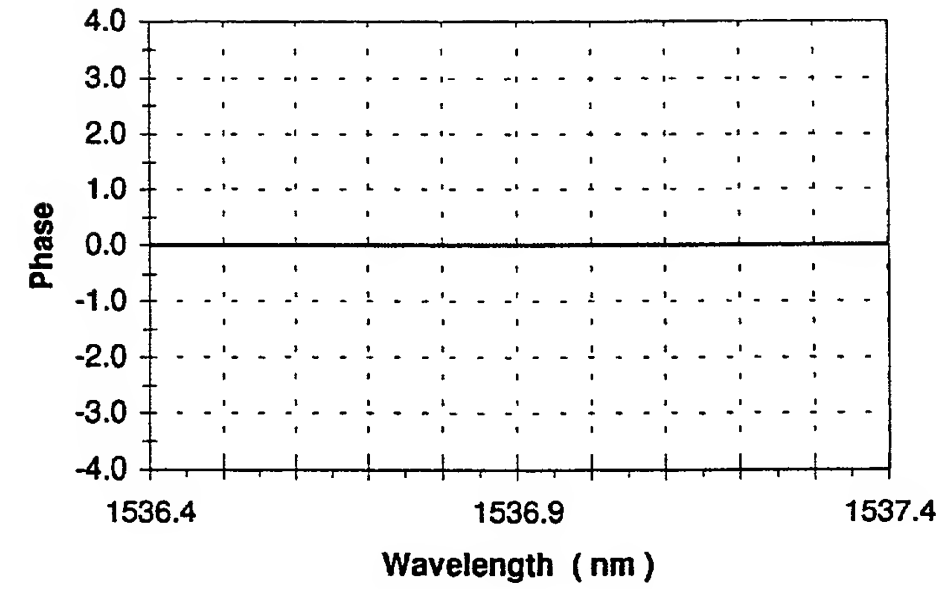


FIG. 23

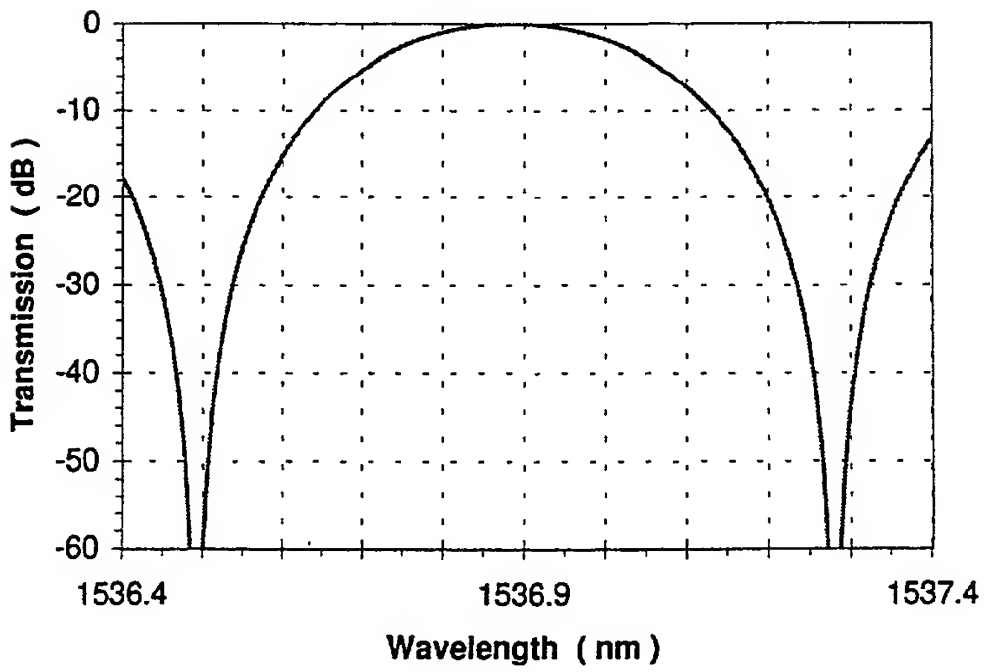


FIG. 24

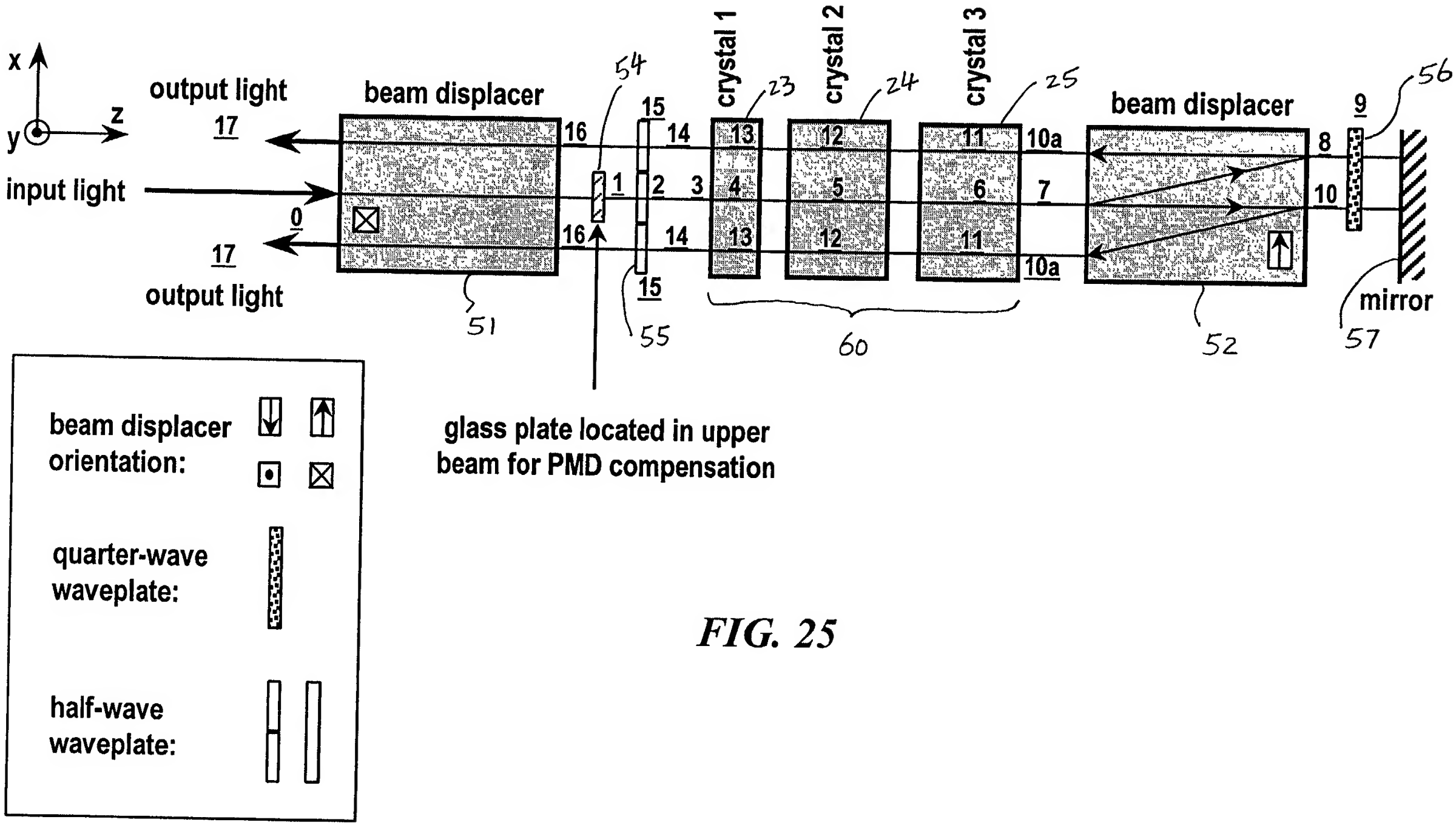

x
y
z
output light
17
input light
0
17
output light
beam displacer
16
15
14
13
12
11
10a
1
2
3
4
5
6
7
8
9
10
54
crystal 1
crystal 2
crystal 3
23
24
25
56
51
55
60
52
57
mirror
beam displacer
orientation:
quarter-wave
waveplate:
half-wave
waveplate:
glass plate located in upper
beam for PMD compensation

FIG. 25

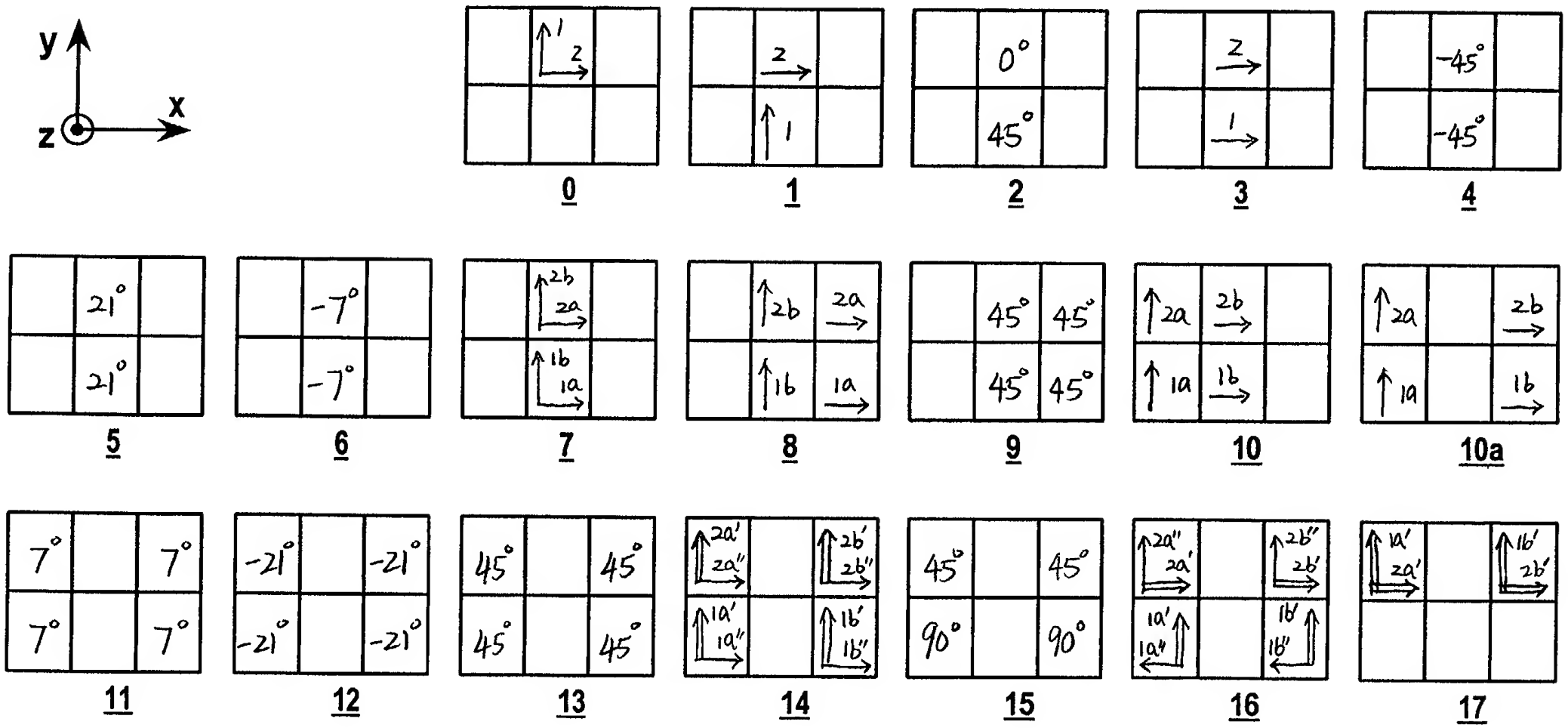

y
x
z
1
2
0°
45°
-45°
-45°
21°
21°
-7°
-7°
2b
2a
1b
1a
45°
45°
45°
45°
2a
2b
1a
1b
2a
2b
1a
1b
7°
7°
7°
7°
-21°
-21°
-21°
-21°
45°
45°
45°
45°
2a'
2a''
2b'
2b''
1a'
1a''
1b'
1b''
45°
45°
90°
90°
2a''
2a'
2b''
2b'
1a'
1a''
1b'
1b''
1a'
2a'
1b'
2b'
0
1
2
3
4
5
6
7
8
9
10
10a
11
12
13
14
15
16
17

FIG. 26

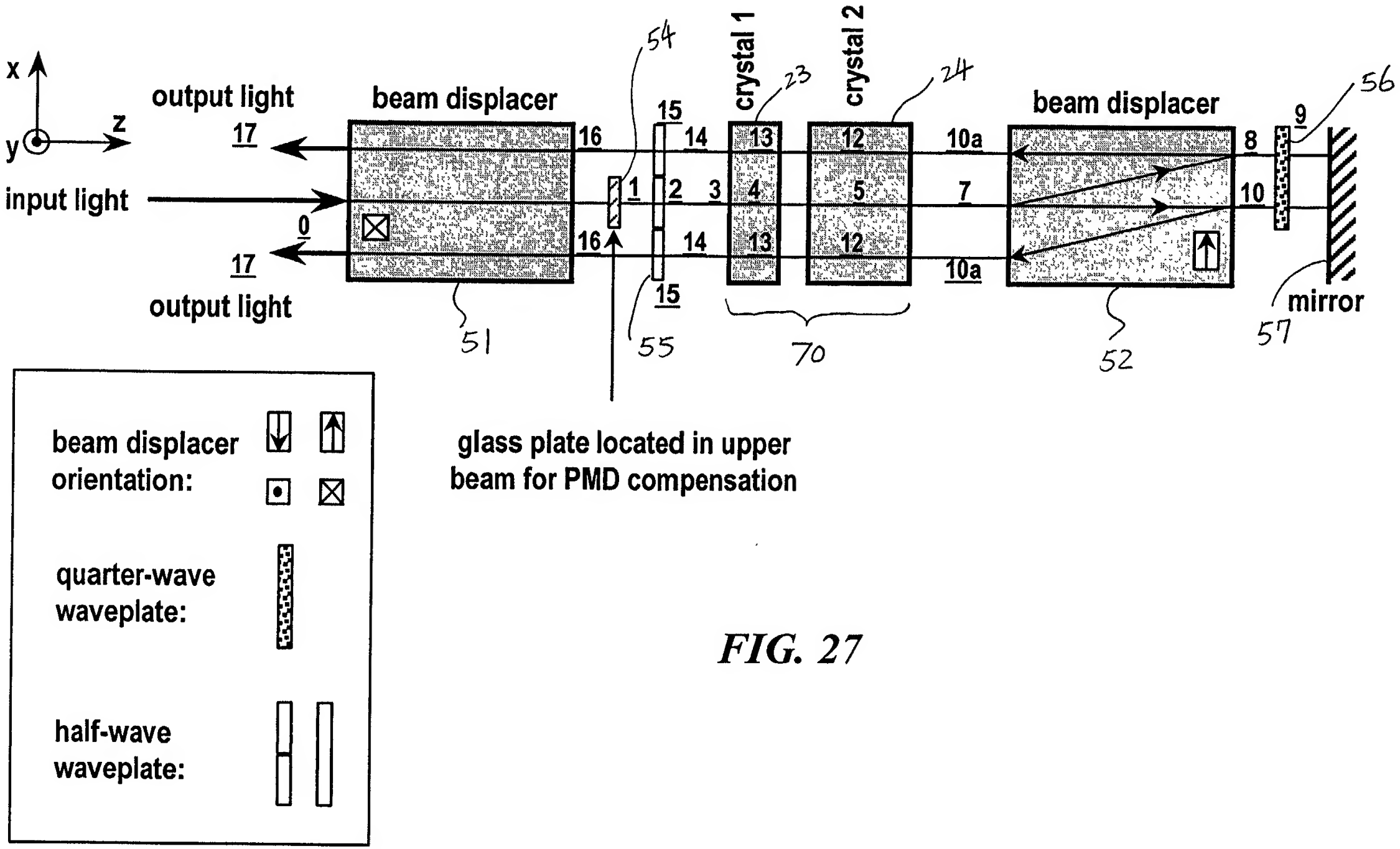

x
y
z
output light
17
input light
0
17
output light
beam displacer
16
15
14
13
12
10a
8
9
56
54
crystal 1
crystal 2
23
24
1
2
3
4
5
7
10
16
14
13
12
10a
15
51
55
70
52
57
mirror
beam displacer orientation:
quarter-wave waveplate:
half-wave waveplate:
glass plate located in upper beam for PMD compensation

FIG. 27

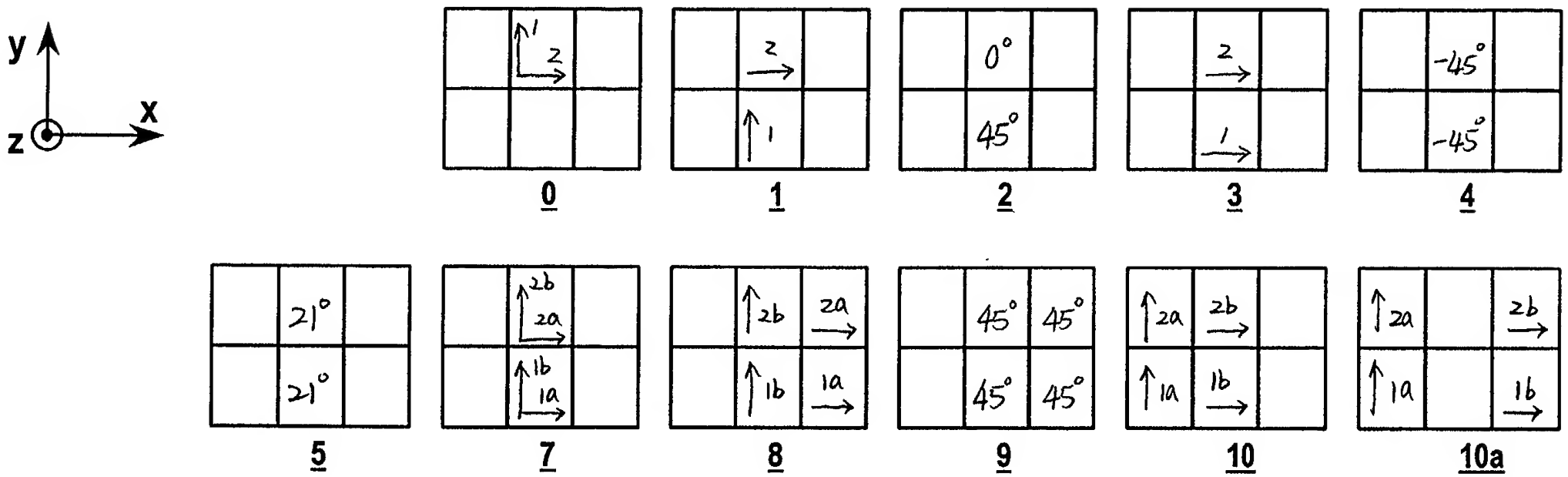
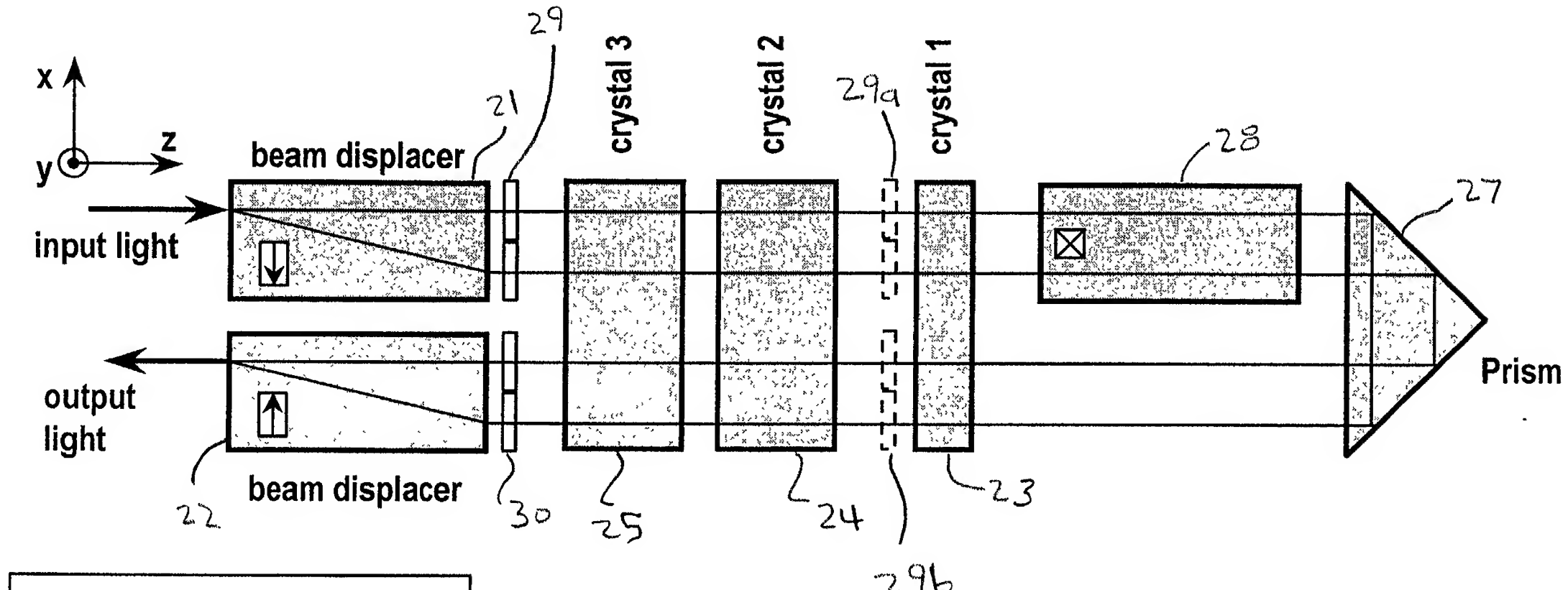

y
x
z
1
2
0
1
2
3
4
21°
21°
5
2b
2a
1b
1a
7
2b
2a
1b
1a
8
45°
45°
45°
45°
9
2a
2b
1a
1b
10
2a
2b
1a
1b
10a
-21°
-21°
-21°
-21°
12
45°
45°
45°
45°
13
2a'
2a''
2b'
2b''
1a'
1a''
1b'
1b''
14
45°
45°
90°
90°
15
2a''
2a'
2b''
2b'
1a'
1a''
1b'
1b''
16
1a'
2a'
1b'
2b'
17

FIG. 28

TOBEY Research



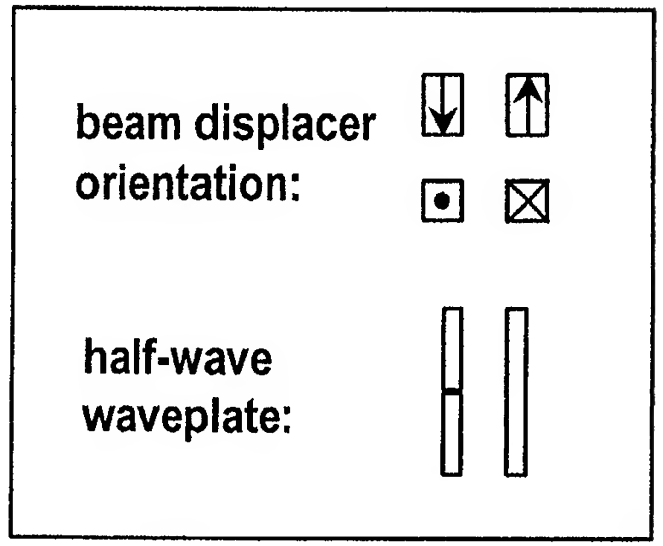
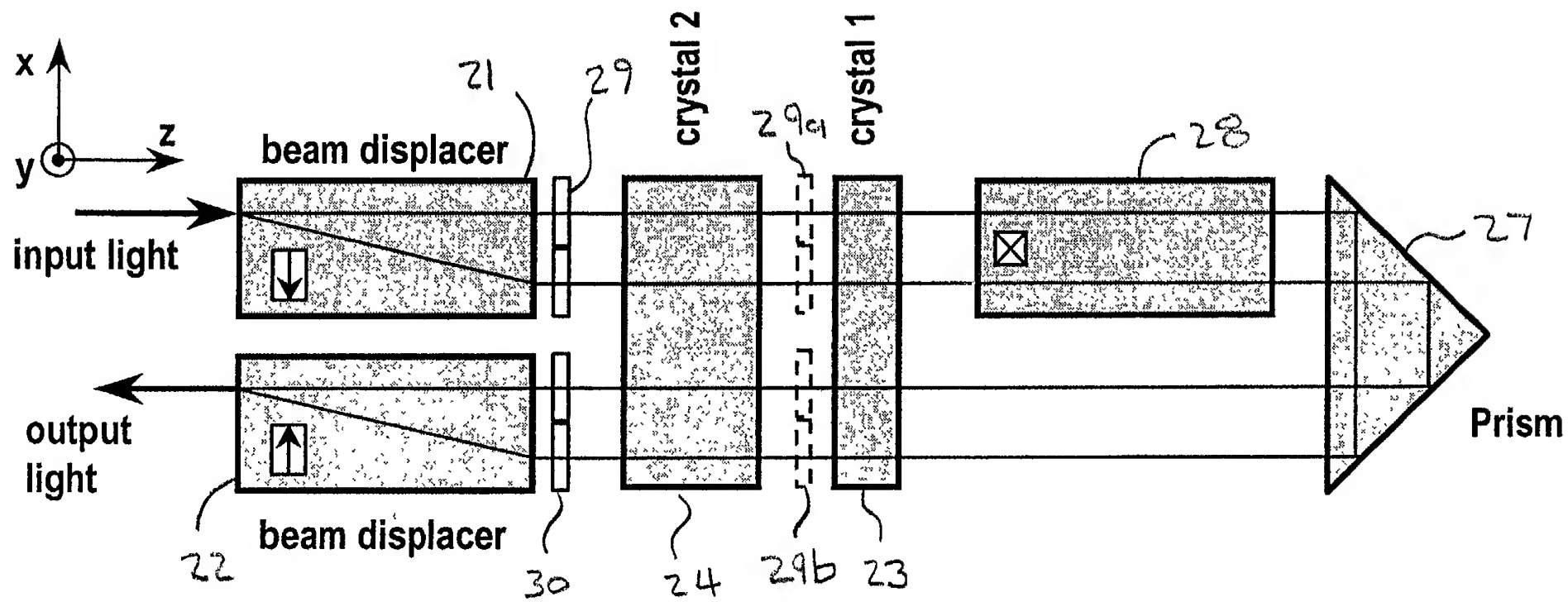


FIG. 29


x
y
z
input light
output light
beam displacer
beam displacer
crystal 2
crystal 1
Prism
21
29
29a
28
27
22
30
24
29b
23

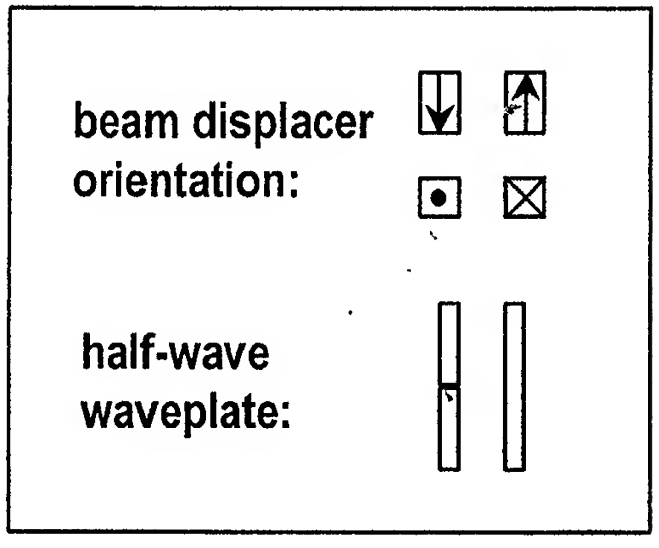

beam displacer orientation:
half-wave waveplate:

FIG. 30